690

OPERATING INSTRUCTIONS

MODEL 100A MULTI-RANGE METER

Taylor

690

OPERATING INSTRUCTIONS

MODEL 100A MULTI-RANGE METER

CONTENTS

1. GENERAL DESCRIPTION:

1.1.	General	4
1.2.	Meter	4
1.3.	Scales	4
1.4.	Controls	5
1.5.	Terminals	5
1.6.	Cut-out	5

2. PERFORMANCE SPECIFICATION:

2.1.	Tables of Ranges	6
2.2.	Resistance Ranges	6
2.3.	Decibel Ranges	6
2.4.	Output Ranges	7
2.5.	Accuracy	7
2.6.	Distorted Waveform	7

3. CIRCUIT DESCRIPTION:

3.1.	Complete Circuit Diagram	8
3.2.	D.C. Voltmeter Circuit	8
3.3.	A.C. Voltmeter Circuit	9
3.4.	D.C. Current Circuit	9
3.5.	D.C. Ohmmeter Circuit	10

4. OPERATING INSTRUCTIONS:

4.1.	General	12
4.2.	Zero Adjustment	12
4.3.	D.C. Voltage Measurement 0—1,000 Volts	12
4.4.	D.C. Voltage Measurement 1,000V to 2,500V	12
4.5.	A.C. Voltage Measurement 0 to 1,000 Volts	13
4.6.	A.C. Voltage Measurement 1,000V to 2,500V	13
4.7.	D.C. Current Measurement 0 to 10 Microamperes	13
4.8.	D.C. Current Measurement 0 to 1 Amperes	13
4.9.	D.C. Current Measurement 1 to 10 Amperes	14
4.10.	D.C. Resistance Measurement	14
4.11.	Decibel Ranges—10dB to + 62dB	14
4.12.	A.F. Output Measurements	14

5. MAINTENANCE:

5.1.	Battery Replacement	16
5.2.	Component Replacement	16
5.3.	High Voltage Adaptor 30100	16
5.4.	Hints on Fault Diagnosis	17
5.5.	Table of Components	18

1.1. General

The Model 100A is a robust multi-range instrument of extremely high sensitivity, which will be found ideal for voltage measurements in high resistance circuits, laboratory and research work T.V. repairs and in other electronic fields. It can be used in place of a valve voltmeter, without the inconvenience of zero drift, valve replacement or a.c. supply connections, inherent in valve voltmeters.

The large 5 inch mirror scale, is easy to read on all ranges. Ranges are selected by a large positive action switch located in the centre of the panel and used in conjunction with an AC/DC and Ohms switch.

The Model 100A meter incorporates an automatic mechanical overload switch as a protection against overload on all ranges. A meter reverse switch is also incorporated to facilitate easy push-button change over on d.c. voltage and current ranges.

1.2. Meter

The meter movement fitted in the Model 100A is a Taylor " Large Centre Pole " fitted with a knife edge pointer.

The meter has a full scale deflection of 8 microamperes and a coil resistance of approximately 9 k-ohms. It is a robust movement fitted with spring mounted jewelled bearings and a varnish impregnated coil.

The meter is designed to withstand normal use in both bench and field work, but like all miniature assemblies, should be handled with reasonable care to ensure a long and trouble free life.

1.3. Scales

The Model 100A has 5 scales. The outer green scale is calibrated in ohms and is used on the 4 resistance ranges. The second, a black linear scale numbered 0—250 is used for voltage and current measurements in multiples of 2.5.

The anti-parallax mirror ensures accurate pointer alignment with all scales. The third black linear scale situated below the mirror and numbered 0—100 is used for voltage and current measurements in multiples of 10. The fourth red scale numbered 0—10 is used for 10 a.c. volts only. The fifth bottom black scale calibrated −10dB to +22dB is used for output measurements in decibels at a reference level 0dB = 1mW into 600 ohms.

1.4. Controls

The centre control knob operates the RANGE selector switch. This selects the voltage, current or resistance ranges as desired.

The left hand knob is the ZERO OHMS adjust potentiometer which compensates for the variation of battery voltage and enables the meter pointer to be set at " 0 " ohms before making resistance measurements.

The right hand knob operates the AC/DC and OHMS switch which selects the appropriate circuit for either a.c. or d.c. measurements.

The left hand push button is a METER REVERSE switch with a " push to reverse " action for a normal d.c. input. This switch has been incorporated to simplify the matter of lead alteration when direction of current may be reversed. The switch is normally set for positive meter deflection with the correct polarity marked on the terminals.

The right hand push button is the CUT-OUT RESET button and is pushed down to reset the cut-out mechanism.

1.5. Terminals

There are six clearly marked terminals on the Model 100A.

The black negative test lead is connected to the negative (−) terminal for all measurements.

The red positive test lead is connected to the positive (+) terminal for all measurements with the exception of 2,500 volts a.c., 2,500 volts d.c., Output, and 10 Amps d.c. These ranges have separate terminals marked with their respective titles.

1.6. Cut-out

An attractive feature of the Model 100A is the provision of an automatic cut-out, which gives a very high degree of overload protection to the whole of the instrument.

The negative input circuit is open circuited if an overload is applied, and the cut-out reset button springs from its normal position on the panel giving an indication to the operator that an overload has taken place.

The cut-out reset button has then to be pressed down to reset the trip mechanism. Before resetting however, the input leads should be disconnected and the fault which caused the overload rectified.

The cut-out is tripped by the meter moving coil actuating the release mechanism beyond the full scale position of the pointer. Provision is made for a similar trigger action below the zero end of the scale so that overloads in either direction are catered for.

The cut-out is not guaranteed to protect the instrument against all types of serious overload or the worst cases of misuse. Mains voltage applied to low current ranges or variable supplies exceeding any ranges at which the instrument has been set, and introduced progressively, may also damage the meter or components. It should be borne in mind that the successful operation of the cut-out depends on the impact of the coil on the trigger mechanism. Circuit components have been deliberately over-rated to allow a generous measure of protection in such cases.

Severe mechanical shock will also trip the cut-out mechanism.

2. PERFORMANCE SPECIFICATION

2.1. Tables of Ranges

D.C. VOLTAGE (100,000 ohms per volt)	D.C. CURRENT	A.C. VOLTAGE (5,000 ohms per volt)
*30,000V		
2,500V	10 A	2,500V
1,000V	1 A	1,000V
250V	100 mA	250V
100V	10 mA	100V
25V	1 mA	25V
10V	250 μA	10V
2.5V	50 μA	—
0.5V	†10 μA	—

*With external adaptor Model 30100
†On 500 millivolts d.c. range

2.2. Resistance Ranges

	Centre Scale
0—200 Megohms	2 Meg-ohms
0—20 Megohms	200,000 Ohms
0—200,000 Ohms	2,000 Ohms
0—2,000 Ohms	20 Ohms

All the resistance ranges are with self contained batteries.

2.3. DB Ranges:—Reference level 0dB=1 mW into 600 ohms

A.C. Voltage Range	Decibels
10V:	−10 to +22 dB
25V:	− 2 to +30 dB
100V:	+10 to +42 dB
250V:	+18 to +50 dB
1,000V:	+30 to +62 dB

2.4. Output Ranges

0 — 10V
0 — 25V
0 — 100V
0 — 250V
0 — 1,000V

2.5. Accuracy

This instrument will produce the highest accuracy when used face upwards, in which position it has been calibrated.

D.C. VOLTAGE AND CURRENT ±2% of full scale deflection.
A.C. VOLTAGE ±3% of full scale deflection.
RESISTANCE ±5% at mid-scale.

2.6. Distorted Waveform

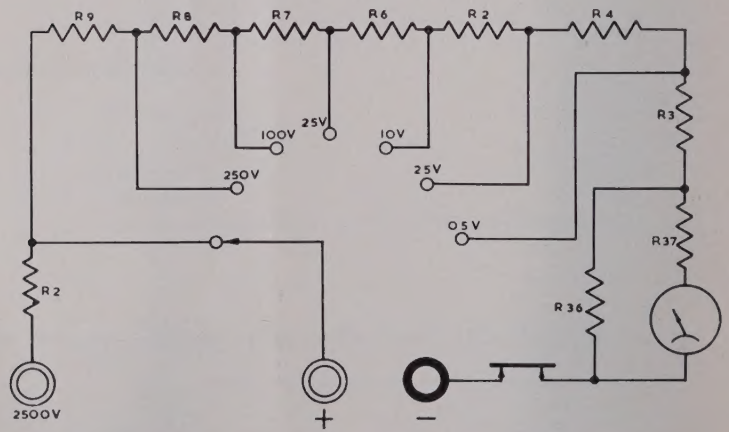
The 100A like all rectifier meters, measures the mean value of one half cycle of the a.c. voltage applied, and is scaled in the r.m.s. value for a sinusoidal waveform. A distorted waveform will cause inaccurate readings, and the user should therefore recognise the possibility of error when using distorted waveforms. Squarish waveshapes produce high readings and peaky ones low readings.

3.1. Complete Circuit Diagram

The complete circuit diagram of the Model 100A is shown in figure 5. Simplified circuits are described in the following paragraphs.

3.2. D.C. Voltmeter Circuit—100,000 ohms per volt

Fig. 1 shows the d.c. voltage circuit when the AC/DC switch is set at the D.C. position and the range selector switch is at any of the d.c. voltage positions. The meter and meter series resistor R.37 are shunted by R.36 to give a full scale deflection of 10 microamperes d.c. The total resistor chain from 2,500V terminal to negative terminal is 250 megohms. By Ohms Law, a voltage of 2,500V d.c. applied between the 2,500 d.c. and negative terminals, will give a current of 10 microamperes which is the full scale deflection of the meter. The range switch selects a predetermined portion of the series resistor chain at a value of 100,000 ohms for each volt.



3.3. A.C. Volt Meter Circuit—5,000 ohms per volt

Fig. 2 shows the a.c. voltage circuit when the AC/DC switch is set at the A.C. position and the range selector switch is at any of the a.c. voltage positions. A selenium bridge rectifier circuit is used to supply the meter with unidirectional current. The resistors R.33, R.34 and R.35, calibrated in conjunction with the rectifier used, shunt the meter and meter series resistor R.37 to give a full scale deflection with an input of 200 microamperes a.c. A series resistor chain is used, as on the d.c. voltage ranges to select the appropriate range value.

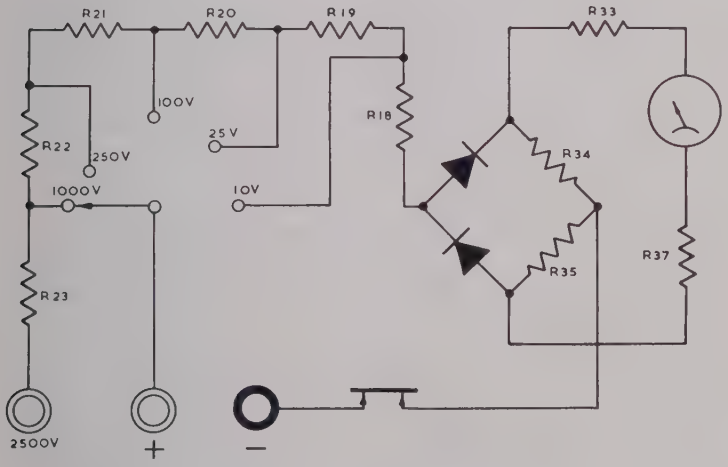


Fig. 2

3.4. D.C. Microammeter, Milliammeter and Ammeter Circuit

Fig. 3 shows the circuit used when the AC/DC switch is set to D.C. and the range selector switch is set to any of the d.c. current ranges. The individual range shunts are connected in series to form a " Universal Shunt " across the meter and the meter series resistor R.37. The 10 ampere shunt is connected to its own external terminal and the remainder selected by the range selector switch, which is connected to the positive terminal.

It will be seen that a portion of the " Universal Shunt " carries most of the current while the remainder adds to the meter series resistance. For this reason the voltage required to give full scale readings will alter with each current range selected. The maximum voltage required will be approximately 1 volt to give a full scale deflection on the 10 ampere range.

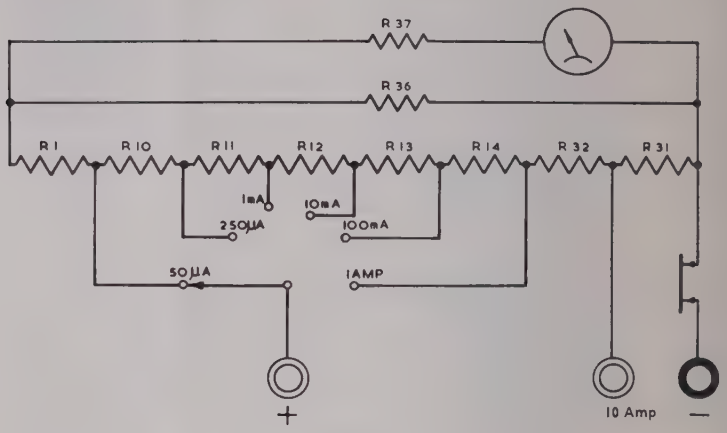

R 37
R 36
R1
R 10
R11
R12
R 13
R 14
R 32
R 31
1mA
10mA
250μA
100mA
50μA
1AMP
+
10 Amp
—

Fig. 3

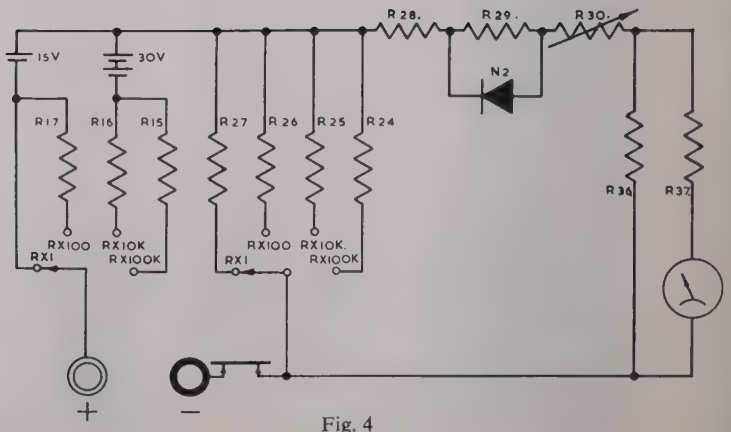

R 28.
R 29.
R 30.
15V
30V
N2
R17
R16
R15
R 27
R 26
R 25
R 24
R 36
R 37
RX100
RX10K
RX100K
RX1
RX100
RX10K.
RX100K
RX1
+
—

Fig. 4

3.5. D.C. Ohmmeter Circuit

Fig. 4 shows the ohmmeter circuits when the 100A is switched to an " Ohms " position with the AC/DC switch set to " D.C." With the selector switch set in the R x 1 position, as shown in Fig. 5 a 1.5 volt cell (EVER READY U2) is switched in circuit together with a 100k-ohm pontentiometer R.30, which compensates for variation in the cell voltage.

When the negative and positive terminals are short circuited the cell voltage is applied to the meter via R.28, R.29 and R.30. A resistor connected across the terminals in place of the short circuit will reduce the current flowing in the circuit and the meter can then be calibrated in ohms.

As can be seen from Fig. 4, with the selector switch moved to the R x 100 position the circuit is similar to that used in the R x 1 Range, but with the shunt resistor changed from R.27 to R.26 with R.17 introduced in series to give an ohms range multiplication of 100, still utilizing the 1.5V cell. With the selector switch now set to R x 10k and R x 100k, it will be seen from Fig. 4 that a 30V Battery (EVER READY B123) is used in place of the 1.5 volt cell, also the shunt series resistors change i.e. R.16 with R.25 on R x 10k range and R.15 with R.24 on R x 100k Range. Rectifier N.2 is fitted to apply d.c. to the meter if a.c. voltages are inadvertently applied to the test terminals, whilst the instrument is switched to any ohms range thus operating the overload cut-out.

4.1. General

It is advisable to switch off power to the circuits under test before connecting or disconnecting the meter test leads. Where it is not practicable, the operator is advised to use extreme care in checking high voltages. Where the voltage to be measured is not known, the 100A should be switched to the highest range and the instrument then switched down until a reasonable deflection is obtained on the meter. Greater accuracy is obtained when the pointer is nearest its full scale reading.

4.2. Zero Adjustment

Before taking readings, ensure that the meter pointer is set at zero. Adjust by means of the slotted bakelite screw located in the centre of the front panel below the meter dial.

4.3. D.C. Voltage Measurements 0—1,000 volts

(*a*) Set the AC/DC switch to " D.C."

(*b*) Rotate the range selector switch to the voltage range required (when in doubt select the highest range).

(*c*) Connect the black negative test lead to the negative (−) terminal and the red positive lead to the positive (+) terminal. Connect the free ends of the test leads across supply to be measured, observing correct polarity.

(*d*) Switch on power and read the voltage on the two black linear scales numbered 0—100 and 0—250. For actual voltage measured multiply or divide the indicated reading on the meter by reference to either 0—100 or 0—250 scales determined by the range switch setting: e.g., 25 volts d.c. will be indicated by a full scale reading on 0—250 scale with range selector at 25 volts, or 25 volts d.c. will be indicated by a reading of 25 on the 0—100 scale with the range switch set at 100 volts.

4.4. D.C. Voltage Measurements 1,000—2,500 volts

CAUTION: Use extreme care when checking high voltages:

(*a*) Set AC/DC switch to " D.C."

(*b*) Rotate the range selector switch to 1,000 volts.

(*c*) Black (−) lead should be connected to the negative terminal, and the red (+) lead connected to the 2,500V d.c. terminal.

(*d*) Switch on power and read the black scale numbered 0—250. For actual voltage measured multiply reading obtained by 10.

4.5. A.C. Voltage Measurement 0—1,000 volts

(*a*) Set AC/DC Switch to " A.C."

(*b*) Rotate the range selector switch to the voltage range required (when in doubt select the highest range).

(*c*) Connect the black test lead to the negative (−) terminal and the red test lead to the positive (+) terminal. Connect the free ends of the test leads across the supply to be measured.
The meter will give a positive deflection on the a.c. volt ranges irrespective of which way the test leads are applied. It is good practice to connect the negative lead to the earthy side of the supply voltage being measured.

(*d*) Switch on power and take readings.

(*e*) For the 10V a.c. range use the red scale marked 0—10 volts a.c. For the remaining ranges 10—1,000 volts a.c. use the black linear scales numbered 0—100 and 0—250 For examples refer to d.c. voltage measurements.

4.6. A.C. Voltage Measurements 1,000—2,500 volts

CAUTION: Use extreme care when checking high voltages:

(*a*) Set the AC/DC switch to " A.C."

(*b*) Rotate the range selector switch to 1,000 volts. Connect the black test lead to the negative terminal and the red test lead to the 2,500V a.c. terminal. Connect the free ends of the test leads across the supply to be measured.

(*c*) Switch on power and read the black scale numbered 0—250. For actual voltage measured multiply this reading by 10.

4.7. D.C. Current Measurements 0—10 Microamperes

The Model 100A has a full scale deflection of 10 microamperes on any of the d.c. voltage ranges, with a resistance of 100,000 ohms per volt. For example: 10 microamperes can be obtained on the 0.5 volt d.c. range at 50,000 ohms with switches set as for d.c. voltage measurements.

4.8. Current Measurements 0—1 ampere

(*a*) Set the AC/DC switch to " D.C."

(*b*) Rotate the range selector switch to the current range required (when in doubt select the highest range).

(c) Connect the black test lead to the negative (−) terminal and the red test lead to the positive (+) terminal.

(*d*) Connect the free ends of the test leads in series with the supply circuit, observing correct polarity. Switch on power and read on the black linear scales numbered 0—100 and 0—250.

4.9. D.C. Current Measurements 1 to 10 amperes

(*a*) Set the AC/DC switch to " D.C."

(*b*) Rotate the range selector switch to the 1 ampere position.

(*c*) Connect the black test lead to the negative terminal and the red test lead to the 10 AMP. terminal.

(*d*) Connect the free ends of the test leads in series with the supply circuit, observing correct polarity. Switch on power and read on the black linear scale numbered 0 — 100. For actual current in amperes divide the reading obtained by 10.

4.10. Resistance Measurements

CAUTION: Before making resistance measurements make sure that no voltage is present across the components to be measured. An applied voltage, when the meter is switched to an ohms range, may trip the overload cut-out, or if the external voltage is small, will cause inaccurate resistance measurements. It should be remembered that on all the ohms ranges the battery positive connection is taken to the 100A negative terminal This may be important because the resistance of some components, e.g., rectifiers and electrolytic capacitors, varies according to the direction of the current through them. Resistance readings therefore depend on the direction in which the test voltage is applied, quite apart from its magnitude.

(*a*) Set the AC/DC switch to " D.C." and OHMS position.

(*b*) Rotate the range selector switch to the ohms range required.

(*c*) Connect the black test lead to the negative terminal and the red lead to the positive terminal.

(*d*) Short the free ends of the test leads and rotate the " zero ohms " control until the pointer is set at zero on the ohms scale of the meter. This is the top green scale on the meter dial.

(*e*) Separate the ends of the test leads and connect them across the components to be measured.

(*f*) Read ohms on the top green scale. For actual measurement in ohms, multiply the reading obtained by the multiple on the ohms range marking on the selector switch engraving, e.g., 2,000 ohms measured on the R x 100 range will give a reading of 20 on the ohms scale.

4.11. Decibel Ranges: —10db to +62db

The bottom black scale on the Model 100A is calibrated from −10 db to +22 db at a reference level 0db=1mW into 600 ohms.

The scale may be used for direct reading when the Model 100A is switched to the 10 volt range.

On 25V a.c. range add 8dB to reading obtained.

On 100V a.c. range add 20dB to reading obtained.

On 250V a.c. range add 28dB to reading obtained.

On 1,000V a.c. range add 40dB to reading obtained.

The decibel ranges are based on a power of 1 milliwatts into 600 ohms. For other levels, let "x" be the resistance in ohms and "y" the power level in milliwatts. The number of decibels to be added for the new reference is given by:

$$10 \log_{10} \frac{600}{xy}$$

4.12. A.F. Output Measurements

(*a*) Set the AC/DC Switch to " A.C."

(*b*) Rotate the range selector switch to the volt range required (when in doubt select the highest range).

(*c*) Connect the black test lead to the negative terminal and the red lead to the OUTPUT terminal. Connect the free ends of the test leads across the supply circuit.

(*d*) Switch on supply and take readings.

N.B. A 0.01 μF, 1,400V d.c. wkg, capacitor is fitted internally in series with the positive terminal and brought out at the output terminal. This is to block any d.c. voltage present, on the supply being measured, which would otherwise give a meter deflection on the a.c. voltage ranges. As the capacitor is in series with the multiplier resistors on voltage ranges it will affect slightly the accuracy of the Model 100A readings, depending on the range selected and the frequency of the applied voltage. This error, however, may be ignored as most a.f. output measurements are of a comparative nature only.

5.1. Battery Replacement

Two batteries are mounted inside the battery compartment of the 100A moulding.

They are EVER READY U2 (1.5V) and B123 (30V) or equivalents. To replace either battery, loosen the two fixing screws of the battery cover and slide the cover until the screw heads locate in the clearance holes.

The cover can now be removed exposing the two battery contact plates. The top contact plates are held in position by spring loaded clips, which should be pushed outwards to release the contact plates. The batteries can now be replaced.

5.2. Replacement of Components

The 100A will withstand application of 6 kV. a.c. between terminals and any external metal components. This value should be maintained if components such as 10A shunt or high voltage strip are replaced. In the event of selector switch replacement or cleaning, the switchdecks should be coated with Midland Silicone compound (M.S.4). This can be applied with a small stiff brush after first making sure that the switch is clean and free from moisture. In replacing any of the 100A components the correct types should always be used, otherwise the circuit insulation may be considerably reduced and this in turn could cause inaccurate measurements with an instrument of this high sensitivity.

A list of approved replacement components will be found in the Table of Components

5.3. High Voltage Adaptor Model 30100

The High voltage adaptor, Taylor Adaptor Model 30100, may be connected in series with the 1,000 volt d.c. Range on the Model 100A to extend the range to 30 kilovolts d.c. Great care should be exercised by the operator in measuring high voltages, to avoid bringing any part of the body near the high voltage point.

To measure high voltages with negative pole earthed:

(*a*) Switch the Model 100A Selector Switch to the 1,000 volt d.c. range. The AC/DC switch to D.C.

(*b*) Connect the 100A negative terminal to the negative (earthed) supply point by means of the negative test lead.

(*c*) Connect the Model 30100 Adaptor to the positive terminal of the Model 100A.

(*d*) Hold the probe at the cable end between the guards, and apply the prod to the high voltage supply point.

To measure high voltages with positive pole earthed:

(*a*) Switch the 100A Range Selector Switch to the 1,000 volt d.c. range. The AC/DC switch to d.c.

(*b*) Connect the positive terminal to the positive (earthed) supply point.

(*c*) Connect the Model 30100 Adaptor to the negative terminal of the Model 100A.

(*d*) Hold the probe at the cable end between the guards and apply the prod to the high voltage supply point.

The voltage should be read on the black scale marked 0—100.

For reading in kilovolts multiply by ·3. For reading in volts multiply by 300.

INSTRUMENT INOPERATIVE

Meter Movement open circuit.

R.37 open circuit (mounted on movement mounting plate).

Cut out faulty.

Reverse switch contacts not making.

OHMS RANGES OPEN CIRCUIT.

Batteries not making contact.

Leads from batteries to switch disconnected or broken.

A.C. RANGES OPEN CIRCUIT OR READING LOW.

Faulty rectifier (STC-D8-1-1YZ).

INACCURATE READINGS.

ALL D.C. RANGES OVER-SENSITIVE (APPROX 30%)

R.36 (Mounted with R.37) open circuit.

ALL D.C. VOLTAGE RANGES INACCURATE.

Main Range selector switch leaking (Top Wafer furthest from Panel).

LOW D.C. CURRENT RANGES OPEN CIRCUIT OR INACCURATE.

Shunt Bobbins (R.1, R.10, R.11, R.12, R.13, R.14, R.31, R.32) open circuit or short circuit.

ALL A.C. RANGES INACCURATE.

R.33 (in series with rectifier) faulty.

Rectifier faulty.

LOW A.C. VOLTAGE RANGES INACCURATE.

R.34 or R.35 (Shunting the rectifier) faulty.

OHMS RANGES INACCURATE.

Batteries Low

Associated Resistor values altered.

IF CUT-OUT FAULTY.

Micro-switch action faulty leaving instrument either open circuit or cut-out unable to function for overload.

Cut-out unable to reset to working position. Trigger arm not correctly set. If necessary adjust 13BA screw to correct depth.

5.5. Table of Components

CIRCUIT REF.	DESCRIPTION	PART NO.
R.1	64.213 kΩ W.W	830321-2
R.2	2 x 75 MΩ 2 watt	115701
R.3	34.2 kΩ	830322
R.4	200 k-Ω	120405
R.5	750 k-Ω	175404
R.6	1.5 MΩ	115502
R.7	7.5 MΩ	175501
R.8	15 MΩ	115603
R.9	75 MΩ	175602
R.10	16 k-Ω	830323
R.11	3 k-Ω	830324
R.12	900 Ω	830325
R.13	90 Ω	830326
R.14	9 Ω	830327
R.15	1902.5 k-Ω	119501
R.16	190 k-Ω	119401
R.17	51.1 Ω	151001
R.18	43.56 k-Ω	143301
R.19	75 k-Ω	570314
R.20	375 k-Ω	137403
R.21	750 k-Ω	175402
R.22	3.75 MΩ	137501
R.23	7.5 MΩ 2 watt	175502
R.24	292.7 k-Ω	129401
R.25	10.4 k-Ω	110311
R.26	1975.8 Ω	830328
R.27	19.5 Ω	830329
R.28	20 k-Ω	120307
R.29	60 k-Ω	160305
R.30	100 k-Ω Potentiometer	710003
R.31	0.1 Ω	740123
R.32	0.9 Ω	830330
R.33	Adjusted with Rectifier N.1.	830332
R.34	Adjusted with Rectifier N.1	830333
R.35	Adjusted with Rectifier N.1	830333
R.36	Adjusted with Meter	830335
R.37	Adjusted with Meter	830336
N.1	Rectifier S.T.C. D8—1—1YZ	740113
N.2	Rectifier Westinghouse 36K12	740129
S.1	Range Selector Switch	700060
S.2	AC DC Switch	700062
S.3	Meter Reverse Switch	830356
S.4	Cut-Out Switch	660470
—	Terminals Complete	660474
—	Front Panel Moulding	660452
—	Case Moulding	660454
—	Battery Compartment	660457
—	Battery Cover Plate	500661
—	Bakelite Knob Range Switch	660472
—	Bakelite Knob Small	660473
—	Meter Zero Adjust Pip	660006
—	Meter Glass	660471
—	Rubber Feet	660941
—	Plastic Feet	660475
C.1	0.01 μF 1400V d.c. wkg.	200016
—	Test Leads Complete	830360
—	Midland Silicone Grease M.S.4	740025
B.1	EVER READY U2 (1.5V)	740067
B.2	EVER READY B123 (30V)	740119
—	Carrying Handle	660158
—	Carrying Handle Stud	520083
—	REVERSE Switch Push Button	660463
—	Cut-Out Reset Button	660464

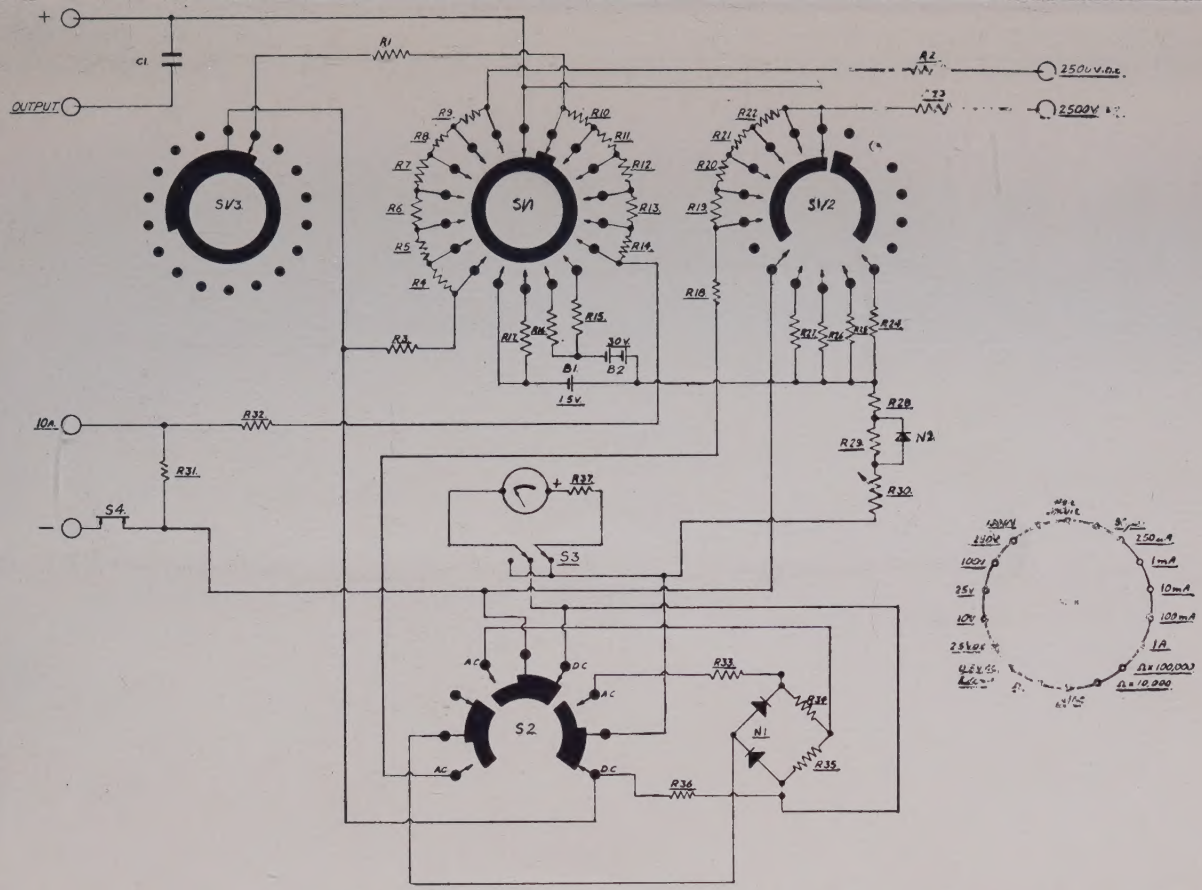


Fig. 5. Circuit Diagram of Taylor Multi-Range Meter 100A

www.manualsplus.com

1004094

TAYLOR ELECTRICAL INSTRUMENTS LIMITED

Montrose Avenue, Slough, Bucks, England
Telephone Slough 21381 Cables Taylins, Slough Telex 84429

THORN

5 - 69

Printed in England